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■ DR. SIDNEY M. CADWELL *(M '31), director of tire development, United States Rubber Co., has kept pretty busy in the rubber field. His contributions include accelerators of vulcanization, new processes, the first rubber antioxidant to be marketed as such, and, more recently, an improved tire tread compound known as "Tempered Rubber". His publications consist largely of patents, and he was co-author of a chapter on Accelerators in the Monograph on Rubber entitled "Chemistry and Technology of Rubber". In 1914, Dr. Cadwell was awarded his B.S. degree at the University of Chicago, and remained there for his graduate study. After receiving his Ph.D. in 1917, he joined the Chemical Service Section, U.S.A., as second-lieutenant. Later he became captain in the Service. Immediately following the war, Dr. Cadwell went to work for the United States Rubber Co. as research chemist. In 1930, he was made assistant director of the development department, and later in the year went to Detroit as director of tire development, a position he still holds. Dr. Cadwell was vice chairman of the Detroit Section of the SAE in 1934, in charge of student activity.*

■ *For the past six years* DR. ROBERT A. MERRILL *has been connected with the Development Division, United States*

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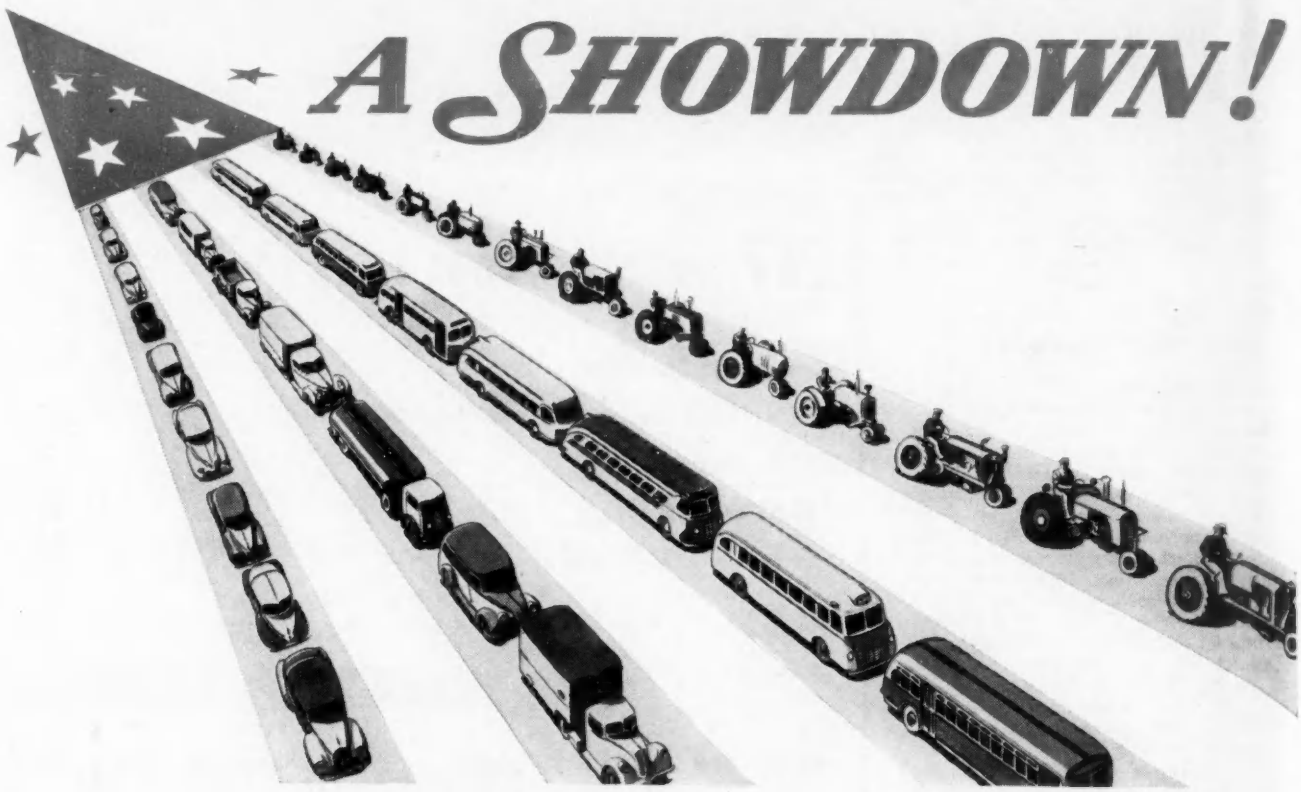
This year—

instead of an automobile show—



A SHOWDOWN!

YOU who build or sell or service America's motor cars and trucks and tractors *know* the important part that the automotive industry is taking in this grim game of showdown.

But in this historic year, it isn't all flags and drums, guns and tanks, ships and planes . . .

There is that vast army of men and machines whose job is providing *transportation* . . . wheels that must roll to keep flowing the life-stream of parts and materials and food and clothing.

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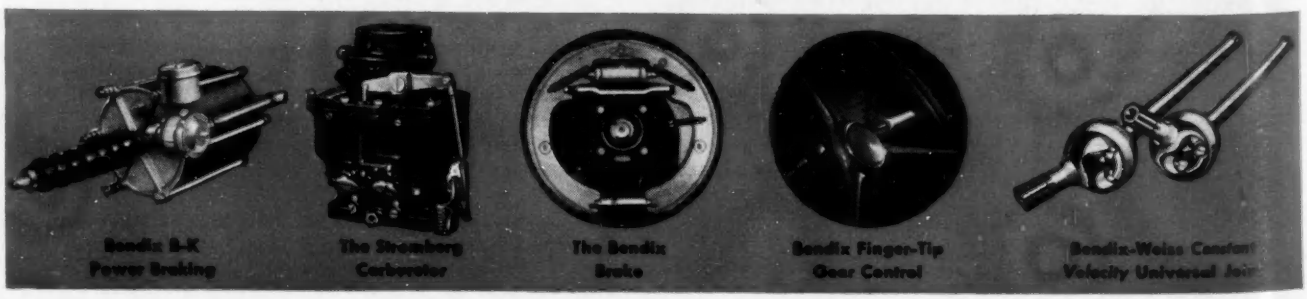

OPM Asks for Fewer Steel Specifications As Aid to Defense

BY DON BLANCHARD*

CONCENTRATION of steel-making facilities during the national emergency on the minimum practical number of specifications, compositions, sizes and shapes, to speed up production of this vital defense material, is the primary objective of a project which has been launched by the Office of Production Management.

At the request of OPM, the American Iron & Steel Institute, the American Society for Testing Materials, and the Society of Automotive Engineers, with the collaboration of the War and Navy Departments, have undertaken to carry out this project. The general direction of the project is in the hands of an administrative committee which is made up of representatives of these three organizations, with advisers from various governmental agencies and from other interested societies.

The chairman of the Administrative Committee is C. L. Warwick, secretary-treasurer of the ASTM, and executive consultant to OPM. The SAE representative on this committee is F. P. Gilligan, chairman of the Iron & Steel Division, SAE Standards Committee, and his alternate is J. B. Johnson, chairman of the Aircraft Materials and Processes Coordinating Subdivision of Aeronautics Division of the SAE Standards Committee. The AISI is represented by E. C. Smith of Republic Steel, with C. M. Parker of the Institute staff as alternate. N. L. Mochel, Westinghouse, and Jerome Strauss, Vanadium Corp. of America, are, respectively, ASTM representative and alternate.

It is not the intention to write a new system of specifications and compositions for use during the emergency, but rather to work from existing specifications as a basis, since this procedure will result in the least confusion and dislocation. Essentially, therefore, the job is to select from these existing specifications the shortest practical list of specifications on which production can be concentrated during the emergency. Moreover, the symbols or designations by which the specifications on the emergency list are commonly known to industry, such as SAE, ASTM, and Federal numbers, will be retained to minimize confusion.

Users to Be Considered

In carrying out the project, full consideration will be given to the needs of steel users, as it is recognized that the real objective is increased production of defense equipment, and that such reduction in the number of steels as it may prove practical to effect, must not interfere with the production of planes, tanks, guns, ships, motorized equipment, etc.

With this in mind the working committees which are being set up by the Administrative Committee to do the actual technical work are being carefully selected to provide adequate user, as well as producer, representation.

On heat-treating grades of steel, which are the primary concern of the SAE, for example, two committees are being organized – one to work on steels used by the automobile industry, and the other to work on steels used in aircraft. The personnel of these two committees will consist respectively of leading metallurgists expertly familiar with the needs of these two industries, plus representatives of the steel industry who have similar expert knowledge of the production steels used in motor vehicles and aircraft.

The final result of the project will be in the form of recommendations to the OPM for use in the administration of priorities and allocations of material. The work is getting under way immediately, and it is hoped that it can be substantially completed within the course of the next few months.

*Technical Assistant to the General Manager, SAE.

SPAB, New Priority Board, Brings New Deal to Automotive Contacts

WHAT SPAB means to the automotive industry:

1. The industry is put directly under Leon Henderson, SPAB member and OPM Civilian Supply division director;

2. The industry is placed more directly under Joseph Weiner, New York attorney and one of Mr. Henderson's deputies.

3. The name of the automotive division has been changed from the Automotive, Railroad & Agricultural Equipment branch to the Automotive & Transportation Equipment branch. Mr. Henderson also heads the rubber products, industrial machinery, and other large groups in the new OPM structure.

4. Offices may be shifted from the Social Securities Building to the headquarters of the Office of Price Administration, of which Mr. Henderson is also administrator.

5. The Automotive Defense Industry Advisory Committee and its technical subcommittees are expected to continue to function along lines similar to those established while James S. Adams was head of the Branch.

When the President created the Supply, Priorities and Allocations Board he put his finger on major criticisms of the Defense effort. SPAB is expected to:

1. Raise the arsenal-for-democracy effort to the status of a "subcommittee of the Cabinet," as far as policies and administration are concerned. This brings the Army and Navy (the buyer) and OPM (the purchasing agency) and OPA (price control) together at the top for the first time.

2. Put administration politicians directly behind the effort through majority of "New Deal" membership on the Board. This will tend to allay oft-expressed suspicion of "big business influence" in the working of the Army-Navy procurement effort, puts success or failure directly up to the White House.

3. End the anomalous bi-headed Knudsenhillman *top* directorship, and put Donald Marr Nelson, Sears-Roebuck ex-vice president, in the driver's seat. An administrator of unusual ability, a man with extensive experience in NRA, Wage-Hour, Treasury procurement, and until now OPM's purchasing director, he is expected to cordinate overlapping efforts, get quicker decisions about equipment needed from the Army and Navy, clean up many internal organization irritations, and in general *be* the executive director – in conformity with his title in SPAB.

SPAB personnel:

- **Vice President Henry Agard Wallace,** chairman;
- **Secretary of War Henry L. Stimson;**
- **Secretary of the Navy, Frank Knox;**
- **Harry L. Hopkins,** special assistant to the President, supervising defense aid;
- **Donald M. Nelson,** executive director, and OPM director of priorities. In the second function he succeeds Edward R. Stet-

tinius, Jr. (appointed Lend-Lease administrator);

• **William S. Knudsen** has been put in charge of production, will devote his whole energies to the job he can do best, and will be relieved from administering the most complex directive organization in all history.

• **Leon Henderson,** now has a voice in all allocations and priorities, remains administrator of the Office of Price Administration (formerly OPACS), and as such he is responsible only to the President. His third function is director of the Division of Civilian Supply, OPM, responsible for dealing with automotive and transportation equipment, as well as other industries.

• **Sidney Hillman,** who continues as associate director-general of OPM and director, Division of Labor, OPM.

OPM executives appear to agree that the defense effort will be stimulated by SPAB, that the detailed organization will be unchanged in the main, that from here on in there will be far more effective coordination of effort. Pipe-smoking, energetic Executive Director Nelson was a part of OPM during its formation and growing-pains era. He is tough-minded, speaks softly, and gives his interviewers undivided attention. A maxim of his: "The man who loses his temper in an argument is always at a disadvantage." Should SPAB dissensions arise, the betting odds now are for a Nelson-Hillman-Wallace-Henderson-Hopkins quintet vs. the Knox-Stimson-Knudsen trio.

Devised by Judge Samuel I. Rosenman of New York from a draft and chart suggested by Bernard M. Baruch, some agreed with the World War I procurement czar that SPAB was "a faltering step forward." However, an SAE Journal "poll" of opinions of 37 OPM executives, came up with:

A good set up, without reservations	24
A good set-up, with reservations	10
No improvement	1
A worse set-up than formerly	2

Most of the 34 who expect improvement feel that SPAB will unify the defense effort.

OPM Reorganized

Soon after his appointment on SPAB, Mr. Knudsen, who continues to function as director general of OPM, and Sidney Hillman, associate director general, announced a rearrangement of industry committees and the assignment of 28 industrial branches, corresponding to the old commodity sections, among four of the seven Divisions:

Division of Production – W. H. Harrison, Director.

Division of Purchases – Douglas C. MacKeachie, Director.

Division of Priorities – Donald M. Nelson, Director.

Division of Civilian Supply – Leon Henderson, Director. His branches will assume primary responsibility for dealing with those industries serving civilian needs.

Division of Materials – W. L. Batt, Director.

Division of Contract Distribution – Floyd B. Odlum, Director (see third column).

Division of Labor – Sidney Hillman, Director.

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Rubber Stamp Breaks Newest "Bottleneck"

Thousands of applications for preference ratings (flooding OPM offices at the rate of 4000 to 5000 a week) were cleaned up the first weekend of SPAB when Donald M. Nelson, director of priorities, enlisted top OPM executives and a crew of paper-work experts, some skilled in mail order techniques borrowed from industry, to work with him through the wee small hours. Techniques:

• A rubber stamp (which turned each application blank into a priority certificate when signed by the director).

• New routing system (applications now go directly to the proper commodity section, routing slips of different color – one for each day of the week).

• Forty-eight hour "deadline" for all applications.

"Business men deserve prompt answers," Mr. Nelson said. "If we can't give them what they want, they'll know where they stand without delay."

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NEW Eliminations of Aluminum Demanded

Despite practical elimination of primary aluminum and reductions of 70 to 80% in secondary aluminum in 1942 car designs, still further change-overs to eliminate more secondary have become immediately necessary as a result of new orders from the Aluminum & Magnesium Branch, OPM.

By Dec. 1, 1941, aluminum of all kinds is expected to be eliminated from pistons regardless of the type of vehicle – only aircraft or aircraft type engines for tanks and marine engines will be excepted. (No primary aluminum is supposed to have been available for pistons of any motor vehicles since Sept. 1, although secondary may be used until further notice for heavy trucks, tanks and tractors. Arrangements for elimination of aluminum pistons from 1942 passenger cars had already been completed when the new models were announced.)

More significant than the piston order – which had been known in principle for some time – are the additional orders on other aluminum uses.

1. Ultimately, OPM expects, not more than 0.2 lb of secondary aluminum alloy per vehicle will be permitted for zinc-base die castings. More immediately, the order reads, no primary aluminum shall be permitted for this purpose after Nov. 1 – and not more than 0.4 lb per vehicle of secondary.

2. No aluminum whatever is to be permitted for distributors, timing gears, decorative and non-functional parts, or for magnetos except for use in salt air atmospheres.

3. Brake pistons – secondary aluminum will be permitted until a substitute material acceptable to the automotive industry and OPM is developed.

4. Ammeter needles – *this is the only automotive use for which primary aluminum is allowed.*

No primary magnesium will be allowed and magnesium-bearing secondary aluminum alloys will be allocated to cover automotive needs for magnesium.

Execution of these orders will necessitate further aluminum eliminations from existing 1942 models although the average of secondary per car is down already to something less than 2 lb. Magnesium content already has been brought to 0.005 lb per car by at least one major producer and others are thought to be in about the same range.

To Push More Subcontracting

AFTER conferring with William S. Knudsen, director general of OPM, Sidney Hillman, associate director general, the Acting Secretaries of War and Navy Robert P. Patterson and James V. Forrestal, respectively, and Rear-Admiral E. S. Land, maritime commission chairman (all members of OPM Council), the President created the Division of Contract Distribution within the OPM to effect a wider geographical and corporate distribution of defense orders to:

• Speed armament production;

• Prevent extinction of small companies, and

• Alleviate unemployment caused by priorities orders.

Floyd B. Odlum, spectacular Wall Street operator and more recently a confidant of Leon Henderson, Price Administrator, Harry L. Hopkins, and Donald Nelson (all SPAB board members), was named to head the division, giving it power to:

• Break up Army and Navy orders into smaller units so the work can be passed around;

• Promote reforms in Federal buying practices;

• Develop programs for converting non-defense factories to arms plants;

• Stimulate pooling of productive facilities to permit small companies to share large orders;

• Provide Government engineering assistance for non-defense business men wanting defense orders, and

• Stimulate subcontracting by large prime contractors.

The new division displaces the Defense Contract Bureau, until recently the Defense Contract Service Section of OPM, which for the past eight months has been intensively selling the idea of subcontracting to prime contractors on the one hand and reluctant small manufacturers, the potential subcontractors, on the other hand.

DCS, under Robert L. Mehornay, who resigned Sept. 11, has a field organization of 39 offices, and keeps its Washington staff busy selling the doctrine of subcontracting with both paid and $-a-year men. He urged his staff and field organization to "stay on." It has worked out effective techniques to spread defense work. Army and Navy officials were first opposed to any effort to bring in smaller manufacturers, feeling more secure with their orders in the hands of large corporations with ample resources of working capital and technical personnel. However, in recent months military cooperation was achieved by DCS, when arrangements were announced to pay subcontractors as much as 15% more than the prime contractors if they will undertake manufacturing defense items.

Another achievement of DCS was working out a "shopping list" with the Army Ordnance Department for its new $2,888,486 program of shells, bombs, gun carriages, guns, gun mounts, fire control equipment, pistols, rifles, and power trains – consisting of transmissions, controlled differentials and final drive units for tanks. This was done through close cooperation of the OPM automotive branch, then under James S. Adams, and the Ordnance Department. Full data about these products are available at all local DCS offices for inspecting by potential subcontractors.

How Workers Are Mobilized

MOBILIZATION and training of manpower to manufacture weapons for the national defense have become one of the most dramatic, if least publicized, efforts of the national defense effort. Realizing that the large automobile corporations have had apprentice and supervisory training schools for years, the Training Within Industry program of OPM's Labor Division has called upon these and about 600 other personnel experts from industry to advise on a nation-wide program to train workers for smaller manufacturers.

Unusual manufacturing techniques required for defense products have developed a new genus, the "production specialist" who is trained to do one simple operation – and to do it quickly and well.

General Motors, with scores of schools, has expanded its program more than tenfold, with the GM Institute, under Major Albert Sobey, continuing as the mainspring of this work.

Ford Motor Co., whose training program stems from the 25-year-old Henry Ford Trade School, has expanded to an enrollment of more than 10,000 student mechanics. The new aircraft school has 3000 apprentice students working on the Pratt & Whitney engine under the general supervision of F. E. Searle. Nearly 1500 young sailors are learning mechanical trades in the new Ford Navy Service school on the 22½-acre reservation and new barracks and school buildings.

Chrysler's program, ranging from apprentice schools to the post-graduate engineering courses, has expanded more than tenfold to cope with a wide range of new manufacturing problems. It also runs a transport maintenance school for army officers.

Packard's training program has swung to aircraft, and both Packard employees and new enrollees are being given practical shop training on the British Rolls-Royce engine, being built for the U. S. and Great Britain.

Study Aero Engine Production

Hundreds of men are taking the Studebaker aircraft-engine training work in connection with the Wright Aeronautical engine program. Many of them have been sent to Paterson, N. J., for first-hand instruction. Hundreds of men from the Ford, Buick, Chevrolet, and Jacobs Aircraft plants are studying the Pratt & Whitney Aircraft engine.

To coordinate the scattered efforts of local chambers of commerce, public school vocational work, and to intensify the engineering courses in colleges, has been a major effort which has fallen upon C. R. Dooley, director of the Training Within Industry program of the Labor Division, OPM.

Sets Up District Offices

Immediately upon organizing the country into 22 districts, each headed by a district representative borrowed from industry, and each supplied with a staff of advisers and consultants, the following program was launched:

1. Making an inventory of present skills. This census weighs the various experience and capacities of each man so that shifts from non-defense to emergency work can be accomplished with the minimum of payroll loss, with the maximum productive effect.

2. Investigating the facilities for training outside industry. Facilities of trade schools, both private and public, were studied, and in many cities and smaller communities the existing facilities of schools and industry were merged – both as to classrooms and teachers.

3. Training within industry was a project designed to concentrate efforts in each community. Out of the preliminary survey the idea of job rotation was evolved to enable the supervisors and foremen in shops to pick men better adapted for one job than another, and to help to place those rejected in other types of defense work in their home communities. Out of this effort has come great hope that effective manpower mobilization will be accomplished in time to put men

Vanguard of SAE Aircraft Engine Standards Project

Underwood & Underwood

Typical of the energetic committee activity of the SAE Aeronautics Division in connection with standardization work assigned by the OPM in the interest of national defense, is the progress made by the SAE Aircraft Engine Subdivision, of which Val Cronstedt, Pratt & Whitney Aircraft, is chairman. His Engine Subdivision, with 11 Subcommittees, has a total personnel of 55 engineers.

After reviewing the work of its 11 Subcommittees, this SAE Aircraft Engine Subdivision adopted a number of standards reports on Sept. 15 in New York. When approved in final form these will be made immediately available to the military services, OPM, aircraft and engine manufacturers. and parts suppliers. Those attending the meeting, called by Chairman Val Cronstedt of the Subdivision were (left to right): J. G. Perrin, chairman, E-8, Drafting Room Practices; Gustaf Carvelli, chairman, E-6, Screw Threads, and E-7, Involute Splines; A. P. Ayers, chairman, E-9, Preservation of Engines; G. N. Cole, chairman, E-5, Standard Parts; L. A. Majneri, Subdivision member; J. D. Redding, SAE Staff; R. M. Hazen, Subdivision member; E. K. Von Mertens, chairman, E-3, Magnetos; Val Cronstedt, Subdivision chairman and chairman of the meeting; Carleton E. Stryker, OPM; A. T. Gregory, Subdivision member; William C. Lawrence, OPM and a member of the SAE Aircraft Accessories & Equipment Subdivision; E. F. Pierce, chairman, E-11, Engine Performance Presentation; F. J. Wiegand, chairman, E-1, Carburetor Installations; P. de Bruyn, and P. S. Farnsworth, both of Pratt & Whitney Aircraft.

into the defense jobs as soon as the orders are let and the jobs materialize.

Sees Many More Available

Director Dooley has concluded that cooperative effort of various industries in any community will multiply the number of available men for the defense effort – first by finding the man who has had some previous training, and then by fitting him where his productive capacity is the highest. The change from unemployment to employment is most effective, he told the SAE Journal, when supplementary training and classroom work are supplied. He praised industry's cooperation, and has found that the smaller companies have been served to the greatest degree because they had been unable to carry out apprentice and supervisory training programs as have larger companies done for years.

Beginner's problems appear to be:

- Confusion over complex details;
- Understanding the main idea;
- Getting the "knack" or feel";
- Developing speed and confidence.

Chief among the beginner's assets are:

- Fearlessness – he doesn't know "it can't be done;"
- Enthusiasm – he is starting on a career in the much-publicized defense effort.

Important among the instructions issued to foremen, supervisors, and others who are training to train employees, is the use of daily "reminder" sheets – a combination of lesson sheets and quizzes.

Bulletins are available from the Training Within Industry Service, Labor Division, Office of Production Management, Washington, D. C. Detailed advice and help are available from 22 field organizations, addresses of which are available from the Service.

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Trucks Get A-3 Priority

ESTIMATING that defense requirements for trucks will reach more than 1,189,000 during the current model year beginning Aug. 1 (increase of 200,000 over 1940 model year's output) OPM granted a blanket priority order of A-3 to motor-truck manufacturers. This is the same rating as was issued for freight cars recently, and the blanket feature permits vehicle maker to extend the A-3 rating to his suppliers for materials which cannot be obtained otherwise, or which are not available from inventories.

The order took effect on Sept. 12, and unless sooner revoked expires Nov. 30.

Applications must be made by individual manufacturers, and covers:

1. Trucks of three tons and over; no volume limitation.

2. Trucks of one and one-half tons or more, but less than three tons; production for September-November inclusive shall be limited to one-half the total of the first six months of 1941. (This limitation does not apply for trucks manufactured for U. S. Government agencies, or Lend-Lease classifications.)

3. Trailers five tons and over; limitations as above.

4. Buses of 15 seats and over; limitations as above.

5. Replacement parts for above categories; not to exceed 60% of the manufacturers' commercial sales during the first half of 1941.

6. Bodies for above categories; no limitations.

In effect, the order permits continued production of the above sizes of vehicles at a rate higher than would be the case without the blanket feature of the priorities order, which permits procurement of materials and parts with a minimum of lost time and paper work.

Of the 4,500,000 trucks in use today, 25% are used in hauling defense goods, OPM estimated.

During the first half of 1941, 22% of truck output was for the military services and 14% for civilian projects identified with defense. Estimates indicate that this will be exceeded during the last half of this year.

Seventeen of 20 trailer makers reported to OPM that their monthly output could have been greatly increased if scarce materials could be had.

Trucks in the first two groups above (1 and 2) represented about 57% of 1940 production.

Bus makers fared better. The average size of buses produced in 1940 was 31.5 seating capacity, and less than 5% of all buses built last year were of 21 and under. Only five 15-passenger buses have been built in 1940, and none of this size were built the year before. Hence, bus makers get, in effect, their whole output under the A-3 priorities. In 1940, the average bus carried 47,000 passengers, ran 37,000 bus-miles doing it.

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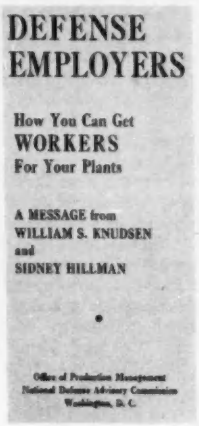
Employment Hints



OPM's new booklet advises defense manufacturers how they can solve their employment problems through the defense labor program now well organized and ready to serve the employers producing defense products

Gaudiness Taken From Fire Engines

Defense impact hit thousands of city fathers from coast to coast when OPM's Division of Purchases said "no" to all the bright metal trim, brass, aluminum, and stainless steel accessories on fire engines which have been the pride and joy of many a municipality.

Red paint? Yes.

Aluminum extension ladders and steps and running boards; brass hand-rails and bells; and chrome-plated grilles? No.

Even some functional parts will be made of steel instead of brass, fire engine manufacturers have agreed. They expect more equipment sales than ever, however.

Ask For Draft Deferment

DESPITE considerable confusion in respect to the attitude of the Army about requesting deferment of workers in key jobs on defense production, no changes in the Selective Service System's practices since the passage of the Selective Service Act, in 1940, Brig.-Gen. Lewis B. Hershey told the SAE Journal.

The procedure for management to apply for deferment for necessary workers:

- Request your local draft board for DSS Form 42A. (This is a revised form tended to simplify the codification of requests and reasons therefor).
- Return it to your draft board.
- Appeal from the local draft board's ruling can be made to the Under Secretary of War, through your draft board.

"Necessary man" is defined as a draft registrant who:

1. Is, or except for a seasonal or temporary interruption would be, employed;

2. Cannot be replaced satisfactorily because of shortage of workers with his qualifications or skill in his work;

3. Being removed would cause a material loss in effectiveness in the plant.

A "necessary man" might also be one in training or preparation for a defense job.

"Not only must the machines turning out weapons and ammunition be kept going at full speed, but the services to keep those machines going must be adequately manned," he said.

"The purpose of the draft is not only to raise an army of trainees, but to *select* these young men in such a way as not to dislocate the manpower of defense manufacturing. This is made clear by the law."

Deferment can only be made in individual cases. Some manufacturers have attempted to obtain "blanket deferment" for all of its men within the age group of draftees.

"It is not intelligent patriotism of an employer, however, to fail to request deferment of any man necessary to the nation's productive activities," he said. Many plants, large and small, have failed to ask deferment of "necessary" men.

But his chief interest, he said, was that employers give the local draft boards all the pertinent information.

"Local boards cannot be expected to operate in a vacuum. They must know from the employer *why* management thinks he is necessary to the plant or operation," he said. The system can be truly selective only if these data are furnished to the local draft boards.

Because there are bound to be errors in so large an undertaking, a Government appeal agent is provided for each board. Above him is an appeal board. In each state headquarters of the System, is a trained officer assigned by the Under Secretary of War as a state adviser on occupational deferments. Then the state director may appeal from the lower appeal board. The national director of the Selective Service System can again appeal. All this, he said, is to prevent injustices from creeping into the draft.

Now It's Reemployment

"It is vital to the success of the Selective Service System that men who have been drafted and have been discharged since Sept. 1, get their jobs back again," he said.

Stevenson Is Acting Head of Auto Branch

Andrew Stevenson, formerly an analyst with the Securities & Exchange Commission, Washington, has been appointed acting chief of the Automotive and Transportation Equipment Branch, OPM, by Leon Henderson, director, Civilian Supply Division.

A graduate of Wooster College, Ohio, 1926, Mr. Stevenson was a Strathcona Fellow, Yale, winning his Ph.D. (railroad transportation) in 1930. He was associate professor of economics and transportation, Kalamazoo College, Michigan, before joining the SEC, where his principal work was studies in the transportation field.

Mr. Stevenson was adviser on transportation and power to the Bureau of Research & Statistics of the original Advisory Commission for National Defense.

"This responsibility is imposed upon us by the law. Local draft board Reemployment Committees, and state Reemployment Committees have been set up to help these young men get back to useful production again," he said, stating that the U. S. Employment Service and its affiliated state employment offices, as well as chambers of commerce, boards of trade, and national organizations have been cooperating.

When a soldier returns, the Selective Service Act requires that the employer restore him to his old job, or one of like seniority, status and pay unless the employer's circumstances have so changed as to make it impossible or unreasonable to do so. Furthermore, the returned soldier shall not lose seniority because of his military service, but shall be considered to have been on furlough or leave of absence.

The law further states: "persons so restored shall not be discharged from such positions without cause within one year after such restoration."

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U.S. Defense Inventions Top Those of Britain

Brig.-Gen. Earl McFarlane, Ordnance, has been appointed a member of the National Inventors Council, succeeding Major-Gen. J. O. Mauborgne, retired from service, Charles F. Kettering, chairman, announced following the meeting of the Council Sept. 9.

For the thirteen months ending Sept. 1, 29,443 inventions and ideas have been submitted to the Council for reference to various Government military services. This rate is about two-and-a-half that of ideas received by Britain's defense inventions bureau.

Although the Council's policy is one of rigid secrecy in respect to the type of inventions accepted for development, Mr. Kettering said "many of them are extremely valuable, and every effort is being made to get them developed and into production for national defense."

The Council had an exhibit in Grand Central Palace, New York, in connection with the Civilian & National Defense Exposition, which opened Sept. 20. Another plan to promote submitting of more defense ideas to the Council will be the issuance of 100,000 posters by the Council.

✪

Hopes Autos Will Set Own Ceilings

IMPORTANCE of the appointment of Cyrus McCormick on Aug. 9 as Price Executive of the Automobile & Truck Section of OPACS, now Henderson-headed Office of Price Administration, assumed greater significance on Sept. 10 when the new Automotive and Transportation Equipment Branch of OPM also was assigned to SPAB member Leon Henderson, who also heads the new OPM Division of Civilan Supply (see SPAB, page 15).

A consensus of executive engineers of the industry is that they will be able to continue to build good automobiles because the indicated McCormick attitude in respect to prices appears to have taken the factor of substitute materials into account.

Pricing of automobiles, even in normal times, involves delicate weighing of numerous factors, balancing against competitive prices the cost of materials, wage rates, overhead charges, reserves for development, and profits. Changes to alternate materials always create higher costs, not necessarily on the basis of cost per pound but on increased costs of new processing and in some cases additional costs of manufacturing equipment.

"If the automotive industry's policies in respect to prices are wise, if automobile companies and dealers do not try to make unwarranted profits, there will be no need for regulation," Mr. McCormick said. "If there develops no reasons for price ceilings in the automotive industry, there will be no price ceilings.

Normal Increases Expected

"There is nothing in the OPA policy that will prevent a normal increase in price at a time when there are normal increases in material and labor costs. OPA joins the industry in believing that the automobile company and the automobile dealer must make a profit or he cannot remain in business."

Emphasizing *"If the necessity arises,"* Mr. McCormick recently said that OPA is prepared to establish price ceilings on:

- Wholesale and retail prices of new cars;
- Trade-in allowances on used cars;
- Used car prices;
- Repair parts prices.

Adams, Resigned, Still on Call

The successor to James S. Adams, resigned chief of OPM's Automotive and Transportation Branch is Andrew Stevenson, formerly of SEC. (See announcement, first column, this page.) Mr. Adams left OPM because of the serious illness of his business associate, E. J. Little, president of Colgate-Palmolive-Peet Co., and on Sept. 5 was thanked officially with this Knudsen-Hillman-Henderson statement: "We regret that Mr. Adams finds it necessary to leave the position of Chief of the Automotive Branch of OPM. He has made a splendid contribution toward solving the difficult problem of curtailing passenger-car production and shifting more of the industry's resources to defense production, while holding labor dislocations in this field to a minimum. It is a matter of much satisfaction to us that Mr. Adams has agreed to continue on the staff of OPM as a consultant subject to call."

Universal Press

Former works manager and vice president of International Harvester Co., Cyrus McCormick, grandson of the inventor of the harvester, was a focal point of automotive interest as the Automotive and Transportation Equipment Branch of OPM was shifted to the bailiwick of Leon Henderson, director of the new Division of Civilian Supply, OPM. Mr. Henderson appointed Mr. McCormick, a Republican National Committeeman from New Mexico, as head of the Automotive Section, Office of Price Administration, Aug. 9.

Defense-o-Grams

HIGH PRIORITIES RATING OF A-2 GRANTED BY OPM TO RESEARCH LABORATORIES. TO GET IT, USE OPM FORM PD-88 ADDRESSING IT TO CHEMICAL BRANCH, OPM, WASHINGTON.

★

FOR SPEED DON'T TELEGRAPH ORDNANCE DEPARTMENT—WIRES GO THROUGH THE SIGNAL CORPS DE-CODING DEPARTMENT, TAKE HOURS TO GET CLEARED.

★

CIVIL AERONAUTICS BOARD NOW REQUIRES 150 HOURS ENGINE TESTING FOR AIRWORTHINESS TEST, AGAINST 50 AS HERETOFORE. ENGINE BUILDERS MUST FURNISH INSTRUCTION BOOKS, ALSO.

★

GET-TOGETHER: AUTOCAR, DIAMOND T, AND WHITE MOTOR ESTABLISHED A JOINT PURCHASING AGENCY TO SPEED PROCUREMENT OF MATERIALS AND PARTS FOR TOTAL OF 9347 ARMY TRUCKS.

★

POOLED EFFORT IN DEFENSE MANUFACTURE AT ELLWOOD CITY, PA., BEING WATCHED BY OTHER COMMUNITIES. SCORE OF COMPANIES SPLIT WORK EACH DOING OPERATIONS BEST SUITED TO EXPERIENCE, PLANT, AND EQUIPMENT.

★

"WE NOW FIND THE AMERICAN (AIR-COOLED) ENGINES ARE QUITE AS GOOD AS ANY OTHER ENGINE IN THE WORLD, AND ARE MOST USEFUL AND MOST VALUABLE." LORD BEAVERBROOK IN A SPEECH BEFORE THE HOUSE OF LORDS.

★

"T" SERIES OF ARMY TANKS BIDS WELL TO BE BIG NEWS IN MASS PRODUCTION EFFORT NEXT SPRING. DESIGNED FROM COMBAT EXPERIENCE OVERSEAS, IT IS SAID TO LEND ITSELF TO IN-LINE ASSEMBLY BETTER THAN THE PRESENT "M" SERIES BEING BUILT BY CHRYSLER.

★

PETROLEUM REFINERS FACE DRASTIC REDUCTION IN TINPLATE FOR CANS.

★

JOHN HERTZ, FOUNDER OF YELLOW CAB CO., TWA, N.Y. OMNIBUS AND PETROLEUM FINANCIER, ASSIGNED BY WHITE HOUSE ADVISOR HARRY HOPKINS TO UNRAVEL ARMY MOTOR TRANSPORT DIVISION, PROMISED ACTION AND INDICATED THAT THERE WOULD BE A TRAIL OF EMBARRASSMENTS.

"None But the Free Are Strong"

The following statement was a part of the announcement issued Sept. 2 outlining the formation of SPAB:

THE BOARD believes that if the public knows why it must forego certain comforts; why it must give rather than get; why, in substance, the fat must go and the muscles be strengthened, the cooperation vital to success will be had in full measure.

THUS, in an hour when free men must unite to defend their freedom, we shall move forward in that spirit which holds that none but the free are strong and none but the strong can be free.

Automotive Employers Urge Up-Grading Plan

Specialized training for automotive mechanics, and up-grading along the lines of that developed by the Labor Division, OPM (see "How Workers are Mobilized," page 17), were urgently recommended to the New York Vocational Educational Commission at a mass meeting of automotive employers Sept. 16, under the chairmanship of John F. Creamer, chairman of the automotive advisory committee of the Commission.

The meeting concurred that a ten-weeks' course in a specialized operation would go far to supply the present and prospective dearth of maintenance mechanics. A course will be developed, with the approval of automotive employers and with the cooperation of OPM, by the Commission.

SAE members on the advisory committee:

Mr. Creamer, T. L. Preble, SAE Vice President for T & M, S. G. Tilden, Alfred Reeves, J. F. Winchester, A. H. Eicholz, and T. D. Pratt.

Gasoline Storm Is Simmering

The tempest in the gasoline pump has about blown over, with the verdict of a Congressional Investigation stating that there was too much excitement about the whole thing. This Eastern Seaboard fiasco is but a foretaste of something serious if the Battle of the Atlantic develops into a major U.S. activity, with a big fleet and large airplane forces to fuel, however.

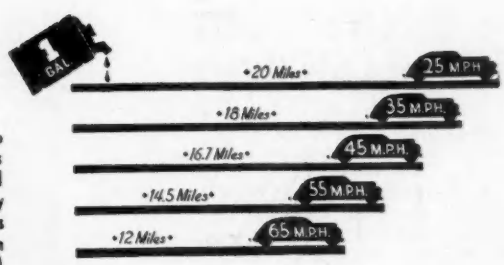
About the only thing agreed upon by all participants was that the transfer of 80 tank ships (about a quarter of the fleet supplying the eastern market) to aid Britain's defense, caused the shortage.

Proposed remedies:

- Building an $80 million pipe line from Texas to New York via Philadelphia. (SPAB said "no" to a request for steel for the 1580-mile pipe line, "perhaps" for seamless steel tubing. Secretary of the Interior Ickes, Petroleum Coordinator, two days after he suggested "gasless Sundays" last May, threatened appeal to the President. Time estimates for building the line providing steel was available: from one to two years).
- Use the estimated 20,000 idle tank cars to bring petroleum to the eastern seaboard. (Railroads announced a cut in rates up to 25%. If all these cars could be used to maximum efficiency, 200,000 bbl a week could be transported. Experts held that this was an outside figure because loading and unloading facilities would have to be increased tenfold, requiring railroad sidings and other construction).
- Increase the production of tankers. (The Maritime Commission announced U. S. shipbuilding was at a new peak, said the proposed 48 tankers wanted by oil industry would have to "wait their turn" as yards were at capacity).
- Gasoline rationing. (When tried in several places, this caused increases of gasoline sales up from 6 to 17%; brought vigorous protests from gas station owners, resulted in arrests for hoarding "explosives"; and the curfew plan died a noisy death).

How to Stretch Gasoline

Graphically telling how to save gasoline, Travelers Insurance Companies tied economy to highway safety in recent advertisements from which the illustration (right) and table (below) were taken:



COST CHART BASED ON 1000 MILES OF TRAVEL

MILES PER HOUR	GASOLINE	OIL	TIRES	MAINTENANCE	COST PER 1000 MI.	COST PER MILE
25	$8.75	$0.15	$1.50	$4.00	$14.40	$0.0140
35	9.60	0.25	3.00	5.00	17.85	0.0175
45	10.50	0.40	4.50	6.60	22.00	0.0220
55	12.10	0.75	7.50	10.00	30.35	0.0300
65	14.00	1.15	10.50	13.00	38.65	0.0390

National Aircraft PRODUCTION Meeting

Oct. 30 to Nov. 1

Hotel Biltmore Los Angeles

PROGRAM

AIRCRAFT ENGINE

Thursday morning, Oct. 30

Robert Insley, Chairman

Aircraft Carburetor Air Scoops and Their Effect on Fuel-Air Metering in Flight – ***F. C. Mock, Bendix Products Division, Bendix Aviation Corp.***

Icing Problems in Aircraft Engine Induction Systems – ***L. B. Kimball, National Bureau of Standards***

AIRCRAFT ENGINE

Thursday afternoon, Oct. 30

Gunnar Edenquist, Chairman

Engineering Liaison and Production Control – ***Donald Kudlich, Wright Aeronautical Corp.***

Fuel Feed at High Altitude – ***W. H. Curtis, Thompson Products, Inc.***

AIRCRAFT ENGINE

Thursday evening, Oct. 30

G. W. Lewis, Chairman

Small Airplanes and Their Power Plants – ***W. B. Stout, Stout Engineering Laboratories, Inc.***

AIRCRAFT

Friday morning, Oct. 31

J. K. Northrop, Chairman

Off the Ground – Into the Air – ***H. H. Budds, F. W. Hofmann, E. E. Lundberg, H. T. Platz, and H. J. Roesch, Briggs Mfg. Co.***

The du Pont Rivet – A New Blind Fastener for the Aircraft Industry – ***Dr. L. A. Burrows, and D. L. Lewis, Jr., E. I. du Pont de Nemours & Co.***

AIRCRAFT

Friday afternoon, Oct. 31

Mac Short, Chairman

Standards for Defense – ***C. E. Stryker, OPM.***

Illustrated Production Breakdown – ***George Tharratt, Douglas Aircraft Co., Inc.***

GENERAL

Friday evening, Oct. 31

C. B. Squier, Chairman

Blitzkrieg and How to Stop It – ***A. T. Colwell, Thompson Products, Inc., and president, SAE***

Morale – An Account of Our Production Position – ***T. P. Wright, OPM.***

Presentation of the Wright Brothers Medal to Clarence L. Johnson

AIRCRAFT

Saturday morning, Nov. 1

Stanley A. Bell, Chairman

Airplane Quality Control – ***J. W. Dunn, Curtiss-Wright Corp.***

Will Accessories Impede Our Payload? – ***L. R. Hackney, Lockheed Aircraft Corp.***

DINNER DANCE

Saturday evening, Nov. 1, 7:30 p.m.

The 3rd Annual SAE Aircraft Engineering Display, that has been a regular feature of recent meetings, will show the products of well-known aircraft parts, materials, and equipment manufacturers.

SAE Coming Events

Oct. 23 - 24	National Fuels & Lubricants Meeting Mayo Hotel – Tulsa, Okla.
Oct. 30-31 & Nov. 1	National Aircraft Production Meeting (and Engineering Display) Biltmore Hotel – Los Angeles, Calif.
Nov. 5 - 6	West Coast Transportation & Maintenance Meeting Fairmont Hotel – San Francisco, Calif.
Nov. 13 - 14	National Transportation & Maintenance Meeting Statler Hotel – Cleveland, Ohio
Jan. 12 - 16, 1942	SAE Annual Meeting (and Engineering Display) Book-Cadillac Hotel – Detroit, Mich.

Baltimore – Oct. 2

Engineers Club; dinner 6:30 p.m. Machining of Plastic Molds – H. A. Frommelt, Kearney & Trecker Corp. Also slides and 16 mm. motion pictures.

Chicago – Oct. 14

Chicago Towers Club; dinner 6:30 p.m. Alternate Materials and Design Trends in the 1942 Passenger Cars – Thomas A. Bissell, technical editor, SAE Journal.

Cleveland – Oct. 13

Cleveland Club: dinner 6:30 p.m. Technique of Order in the Machine Age – Walter Dorwin Teague. Coffee talk by Charles Stilwell, president, Warner & Swasey Co.

Colorado Club – Oct. 24

Edelweiss Restaurant, Denver; dinner 6:30 p.m. Behind the Scenes in National Defense Engineering – A. T. Colwell, vice president, Thompson Products, Inc., and president, SAE. Guest – John A. C. Warner, secretary and general manager, SAE.

Dayton Section – Oct. 17

Cincinnati. Aircraft Meeting. Speaker: R. F. Gagg, assistant to general manager, Wright Aeronautical Corp.

Indiana Section – Oct. 9

Antlers Hotel, Indianapolis; dinner 6:45 p.m. New Uses of Rubber – Military and Civil – Including Late Development in Synthetics – E. Waldo Stein, Firestone Tire & Rubber Co.

Metropolitan – Oct. 16

Park Central Hotel, New York City; dinner 6:30 p.m. Manufacturing Gasoline for Modern Engines – W. M. Holaday and John Happel, Socony-Vacuum Oil Co., Inc.

Milwaukee – Oct. 10

Milwaukee Athletic Club. Design Features and Performance Characteristics of the Mercedes-Benz DB-601A Aircraft Engine – Raymond W. Young, chief engineer, Wright Aeronautical Corp.

Northern California – Oct. 14

Subject: Fuels and Lubricants.

Northwest – Oct. 23

Crawford's Seafood Grill, Seattle; dinner 7:00 p.m. Transmissions – E. L. Ludvigsen, vice president, general manager, Fuller Mfg. Co.

Oregon – Oct. 10

Lloyds Golf Course; dinner 6:30 p.m. Subject: Technical presentation of 1942 Cars. Speakers: Prominent service managers.

Philadelphia – Oct. 8

Speaker to be announced.

St. Louis – Oct. 14

Parks Air College, East St. Louis, Ill.; dinner 7:15 p.m. Keep Them Flying – Oliver L. Parks. The College's Work in the Commercial School – Frederick H. Roever. Conducted tour of Parks Air College.

Southern California – Oct. 17

Elks Club, Los Angeles; dinner 6:30 p.m. The Engineer in National Defense – Lt.-Col. Edwin C. Kelton, U. S. District Engineer for the Southwest, and president, Southern California Post, Society of American Military Engineers.

Southern New England – Oct. 8

Hotel Bond, Hartford. Factors Affecting Gasoline Mileage – W. M. Holaday and W. S. Mount, Socony-Vacuum Oil Co., Inc.

Washington – Oct. 14

Cosmos Club, Washington, D. C.; motion picture 5:30 p.m.; dinner 6:30 p.m. Army Tanks – Lt.-Col. John K. Christmas, charge of automotive test and research division, U. S. Army, Ordnance Department.

Defense is Theme for Two T&M Meetings

TWO transportation and maintenance meetings of unusual significance have been planned for November by the T&M Activity of the Society, under Vice President T. L. Preble, and Austin Wolf, T&M representative of the National Meetings Committee.

The West Coast Transportation and Maintenance Meeting, under the chairmanship of S. B. Shaw, is slated for Nov. 5 and 6 at the Fairmont Hotel, San Francisco. Defense impact on the motor transportation industry will be stressed as it will again on Nov. 13 and 14 at the National Transportation & Maintenance Meeting in Hotel Statler, Cleveland.

"Substitute Materials" will be the opening paper, Wednesday morning, of the West Coast meeting, with Charles Becker in the chair. H. E. Jordan will speak on "Engineered Bus Transportation," and L. A. Schroyer will give a paper on "Taxicab Fleet Maintenance" during the afternoon session. J. Verne Savage will speak on "Motor-Vehicle Inspection" that evening. "Interstate Transportation and Maintenance" will be one subject of the morning session, Nov. 6, as will be Peter Glade's paper on "Supercharging Highway Transport." The evening session will hear E. W. Templin on "Chromium Plating," and a presentation of the problem of "Modern Crankcase Oil." President A. T. Colwell and John A. C. Warner, general manager of the Society, will speak at the dinner, Thursday evening, Nov. 6. The day before the West Coast T&M Meeting convenes, members will be invited to attend the open meeting of the American Petroleum Institute's transportation session.

The National T&M Meeting in Cleveland opens Thursday morning, Nov. 13, in Hotel Statler, with a paper on "Enhancing the Intensity of Usage of Motor Vehicles," by F. K. Glynn. This is the project of Subcommittee C-6 of the T&M Activity. G. D. Gilbert will be chairman. At the afternoon session, Louis Morony, Automobile Manufacturers Association, and former executive director of the American Association of Motor Vehicle Administrators, will speak on "State Restrictions on Motor Vehicles and Their Effect on Defense Transportation." Sponsored by the Truck & Bus Activity, this session will be presided over by H. E. Simi.

Major-Gen. Edmund B. Gregory, the Quartermaster General of the U. S. Army, will be the speaker at the banquet. Other speakers will be President Colwell and General Manager Warner. Arthur Townhill, chairman of the Cleveland Section, will be general chairman of the banquet, and T. L. Preble, vice president representing the T&M Activity, will be toastmaster.

"Engine Deposits – Their Prevention and Removal" will be the subject of a paper by Errol Gay, Friday morning. This is another SAE T&M project, and is in charge of Mr. Gay's Subcommittee B-1. The afternoon meeting, on public utility problems, will hear John L. Rogers, Interstate Commerce Commissioner and chairman of the recently-created Central Motor Transportation Committee, charged with laying plans for motorized transport during the present emergency. Randolph Whitfield will be chairman of this session.

SAE NOMINEES FOR 1942... for:

President.....A. W. S. Herrington
President, Marmon-Herrington Co., Inc.

Treasurer .....David Beecroft
Bendix Products Division, Bendix Aviation Corp.

Membership on SAE Council, term of 1942-1943:

W. S. James
Chief Engineer, Studebaker Corp.

J. V. Savage
Superintendent, City of Portland, Municipal Shops & M. V. Inspection Station

T. P. Wright
Assistant Chief, Aircraft Section, Office of Production Management

CONTINUING on the Council for 1942 will be the following men who were elected for a two-year term at the beginning of 1941: N. C. MILLMAN, Product Service Manager, General Motors of Canada, Ltd.; H. O. MATHEWS, Automotive Engineer, Public Utility Engineering & Service Corp.; D. A. FALES, Associate Professor of Automotive Engineering, Massachusetts Institute of Technology. Serving on the 1942 Council as Past Presidents will be A. T. COLWELL, Vice President, Thompson Products, Inc.; and ARTHUR NUTT, Vice President of Engineering, Wright Aeronautical Corp.

Vice Presidents:

Aircraft .....Peter Altman
Director, Manufacturing Research Dept., Vultee Aircraft, Inc.

Aircraft-Engine .....C. F. Bachle
Vice President, Charge of Research, Continental Aviation & Engineering Corp.

Diesel-Engine .....H. L. Knudsen
Chief Engineer, Cummins Engine Co.

Fuels & Lubricants.....C. M. Larson
Chief Consulting Engineer, Sinclair Refining Co.

Passenger-Car.....Ernest E. Wilson
Director, General Motors Proving Ground

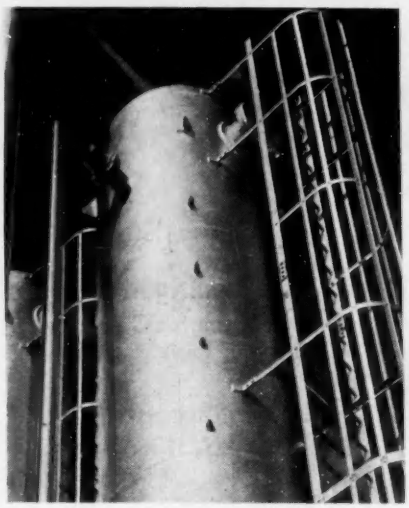
Passenger-Car-Body.....E. L. Allen, Jr.
Sales Engineer, Reid Products Division, Standard Products Co.

Production .....Joseph Geschelin
Detroit Technical Editor, Chilton Co.

Tractor & Industrial.....L. S. Pfost
Chief Engineer, Tractor Division, Massey-Harris Co.

Transportation & Maintenance..J. Y. Ray
Supervisor Automotive Equipment, Virginia Electric & Power Co.

Truck & Bus.....F. B. Lautzenhiser
Chief Transportation Engineer, International Harvester Co.



SAE National FUELS & LUBRICANTS Meeting

HOTEL MAYO
Tulsa, Okla.

Oct. 23-24

PROGRAM

Morning Session — **Oct. 23**
G. C. Richardson, Chairman

Know Your Money — ***Treasury Department Film***

Quality Trends in Motor Fuels (Central United States) — ***R. C. Alden, Phillips Petroleum Co.***

Afternoon Session — **Oct. 23**
A. L. Heintze, Chairman

Oil Filters — ***Dr. Ulric B. Bray, Consulting Engineer***

Diesel Lubricating Problems — ***A. E. Smith and J. P. Stewart, Socony-Vacuum Oil Co.***

Evening Session — **Oct. 23**
B. E. Sibley, Chairman

What the SAE Means to You — ***John A. C. Warner, Secretary and General Manager, SAE***

Behind the Scenes in National Defense Engineering — ***A. T. Colwell, president, SAE, and vice president, Thompson Products, Inc.***

Morning Session — **Oct. 24**
C. S. Hansen, Chairman

A Cetane Number Study of Diesel Fuels — ***W. G. Ainsley, H. D. Young, and M. L. Hamilton, Sinclair Engine Laboratory***

Current Solution of Cooling Problems in Various Uses of Oil, Jacket Water, and Special Heat Transfer Applications — ***H. F. Brinen, Young Radiator Co.***

Afternoon Session — **Oct. 24**
W. G. Ainsley, Chairman

Changes Occurring in Oils and Engines from Use — ***F. A. Suess, Bert H. Lincoln, H. C. Baldwin, and W. A. Jones, Continental Oil Co.***

Value of Engine Rating System in Correlating Oil Stability Engine Tests — ***H. L. Hemmingway, Kendall Refining Co.***

Debate Session — **Oct. 24**
Dr. Ulric B. Bray, Chairman

Student Representatives Debate:

"Resolved – Passenger-Car Crankcase Draining Every Thousand Miles Is to Be Preferred Over Draining at Greater Distances"

Affirmative
College of Engineering, University of Oklahoma

Negative
Division of Engineering, Oklahoma Agricultural College

OBITUARIES

Laurence Henry Pomeroy

Laurence Henry Pomeroy, internationally-known automobile designer, and lately manager, Midland branch, H. M. Hobson (Aircraft and Motor) Components, Ltd., Hobson Works, Coventry, England, died suddenly May 27, at the age of 57.

It was as technical director of Vauxhall Motors, Ltd., that Mr. Pomeroy first won fame as a designer. In 1919, he came to this country, worked for Pierce-Arrow Motor Car Co., at which time he made a special study of the application of light alloys to automobile construction. On returning to England in 1926, he was appointed chief engineer of The Daimler Co., Ltd., and in 1929 became managing director. Seven years later he transferred his activities to the De Havilland Aircraft Co. as general manager of the Engine Division. From there he went to work for H. M. Hobson Components, Ltd.

George Owen Pooley

George Owen Pooley, automotive engineer, Mack Mfg. Corp., died in August of a heart attack while walking down the driveway of his home at Far Hills Farm, Langhorne, Pa.

Mr. Pooley was extremely active in SAE work; his membership covered the period between 1929 and 1937. During that period he was a chairman of the Baltimore Section; a vice chairman of the Washington Section; a member of the Transportation & Maintenance Activity Committee for all but two years; and a member of various other SAE committees.

From 1906 to 1936, Mr. Pooley was superintendent of supplies and motor vehicles, Chesapeake & Potomac Telephone Co. and associated companies, in Washington, D. C., and later in Baltimore City, Md. The work entailed the adaption of motor vehicles to telephone work and motor-vehicle maintenance, together with supply purchases and distribution.

He retired from the telephone position in 1937, and a little later accepted the engineering position with Mack Mfg. Corp.

He is survived by his widow, Frances; his mother, Mrs. Beulah Pooley of Clifton, N. J., a brother, and two sisters.

John Carl Haartz

John Carl Haartz, credited with having introduced mohair top material for automobiles in 1907, president of the Haartz Auto Fabric Co. and the Haartz-Mason-Grower Co., Watertown, Mass., died of a heart attack at his Campton, N. H., summer home, Aug. 1. He was sixty years old.

After his graduation from the evening division of Lowell Textile Institute in 1907, he went into business with his father, the late Frederick Haartz, who operated a cloth sponging establishment in Boston.

Becoming an expert on textiles, Mr. Haartz later organized J. C. Haartz, Inc., manufacturers of rubberized fabrics for automobiles. In 1924, he resigned as president and organized the two companies of which he was president at the time of his death.

He joined the Society in 1930. Surviving are his widow, Mrs. Agnes Bruce Martin Haartz; a son, John C. Haartz, Jr.; two daughters, Mrs. Charlotte Marinelli and Mrs. Marjorie E. Randall.

About SAE Members

WILLIAM L. BATT has been named on the five-man mission to represent the United States in a three-power conference at Moscow to implement the program of Anglo-American aid to Russia. He is director, Division of Materials, OPM; chairman, Business Advisory Council for the Department of Commerce. Mr. Batt is president, SKF Industries, Inc., and chairman of the board, American Management Association. He was at one time chairman, SAE Finance Committee.

W. L. Batt

Named on Moscow Mission

DR. THOMAS MIDGLEY, JR., Ethyl Gasoline Corp. vice president, was awarded the Priestley medal, highest honor bestowed by the American Chemical Society at the opening session of the Society's 102nd meeting, Atlantic City. Dr. Midgley, discoverer of tetraethyl lead as an antiknock agent in gasoline, was honored for outstanding achievement in chemical science. Despite the fact that he was stricken with infantile paralysis last September, Dr. Midgley, who is chairman of the board of directors of the ACS, actively participated in the convention.

In 1937, Dr. Midgley was awarded the William H. Perkin Medal by the American section of the Society of Chemical Industry for distinguished work in applied chemistry, including development of antiknock motor fuels and safe refrigerants. He received the Nichols Medal in 1923 and the Longstreth Medal in 1925. He has been with Ethyl for 17 years.

EDWARD R. STETTINIUS, JR., formerly OPM's Director of Priorities, has been named special assistant to the President to administer Lend-Lease funds. He succeeds Harry L. Hopkins, and is given broader powers than his predecessor. His job: To speed deliveries, cut red tape.

COL. G. A. GREEN, vice president, General Motors Truck & Coach Division, Yellow Truck & Coach Manufacturing Co., who, the early part of this year, was granted leave of absence so that he could join the Harriman Mission in London as technical adviser on ordnance matters (SAE Journal, May, 1941, p. 21), recently returned to England, after having paid a short visit to this country.

In July, at Lord Beaverbrook's request, Col. Green was appointed adviser to the British Tank Board; he is also liaison officer with the United States Ordnance.

Col. Green spent three months in England and two months in the Middle East.

BROOKS STEVENS, industrial designer, has been retained by the Four Wheel Drive Auto Co., to restyle and streamline future FWD truck models. Mr. Stevens, a graduate of Cornell University College of Engineering, is nationally famous in the profession of industrial design.

JOHN JAY IDE, technical assistant in Europe of the National Advisory Committee for Aeronautics, is now on duty in the Bureau of Aeronautics, Navy Department, Washington, D. C., as Lieutenant-Commander, USNR.

A. W. LINES, president, Accuralite Co., Muskegon, Mich., a division of Sealed Power Corp., has been elected a director of the company.

J. HUGO SMITH has been named president, Gordon R-C, Royal Oak, Mich. Formerly he was president, Wesson Co., Ferndale, Mich.

E. H. Kelley

New Post

E. H. KELLEY, former production engineer, Chevrolet Motor Division, General Motors Corp., has been named chief engineer of Chevrolet's Aviation Engine Division, Buffalo.

Made General Manager

C. A. Michel

C. A. MICHEL has been advanced from factory manager to general manager, Guide Lamp Division, General Motors Corp., Anderson, Ind. Mr. Michel was for many years chairman of the Lighting Division, SAE Standards Committee.

F. L. YERZLEY, physicist, E. I. du Pont de Nemours & Co., Wilmington, Del., was co-author of a paper entitled, "The Effect of Low Temperatures on Neoprene Vulcanizates," presented before the Division of Rubber Chemistry at the 102nd meeting of the American Chemical Society, held in Atlantic City recently. The paper dealt on a new type of neoprene synthetic rubber which combines the desirable qualities of natural rubber and the oil-resistant qualities of most synthetic rubbers.

RALPH E. FLANDERS, president, Jones & Lamson Machine Co., Springfield, Vt., has been elected a Class B director of the Federal Reserve Bank, Boston. He will serve until Dec. 31, 1943.

On the BDV "Flying Fortress" Committee

Press Association, Inc.

MAC SHORT, vice president in charge of engineering, Vega Airplane Co., Division of Lockheed Aircraft Corp., Burbank, Calif., and SAE vice president for Aircraft Engineering in 1936 and again in 1941, has been appointed to the BDV Committee, whose function it is to expedite the manufacture of the Boeing B-17E, more commonly known as the "Flying Fortress."

The committee consists of representatives from the Army Air Corps, and from the Boeing, Douglas, and Vega airplane companies. Plan is for Boeing to provide blueprints and master templates for Vega and Douglas so all three companies can turn out "Fortresses." Under the master committee, of which Mr. Short is a member, are three subcommittees on tooling, technical information, and procurement. Thus, nearly 100 top-flight men from the three companies are at work on the project.

CARL W. PEPPERMAN, formerly sales engineer, Lewis Engineering Co., was recently appointed chief engineer of the company.

A. W. HOPTON, vice president in charge of tire sales, Dominion Rubber Co., Ltd., Can., recently celebrated his 25th year of service with that organization. He is now located at the Dominion Tire Factory, Kitchener, Ont.

MAJOR A. S. McARTHUR, assistant manager in charge of operation and equipment, Toronto Transportation Commission, has been granted leave of absence from the Commission on his appointment to the Royal Canadian Ordnance Corps.

Major McArthur went overseas during the World War, 1914-18, as transport officer of the 35th Battalion, was gassed in France

With RCOC

Major A. S. McArthur

while serving with the 3rd Tunneling Company, Canadian Engineers, and on returning in 1917 was appointed code officer at New York, until 1919.

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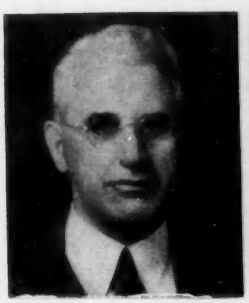
In Military Services

Three SAE members are represented in the Office of Quartermaster General, U. S. Army, Motor Transport Division, Washington, D. C. They are: **MAJOR WILLIAM C. MORGAN, JR.,** former sales engineer, Perfect Circle Co., Hagerstown, Ind.; **1st LT. CHARLES W. MacMILLAN,** former development engineer, Hinckley-Myers Co., Division Kent-Moore Organizations, Inc., Jackson, Mich., and **1st LT. RICHARD R. LOVELL,** former motor service foreman, Illinois Bell Telephone Co., Chicago.

FRED J. MECHLIN, formerly director, State of Louisiana, Department of Revenue, State Capitol, Baton Rouge, is now a Major, U. S. Air Corps.

S. G. NORDLINGER is now a Captain, U. S. Army Air Corps, Materiel Division, Wright Field, Dayton, O. His job is experimental engineering, aircraft engines and accessories. Prior to this he was in the engineering department, Continental Motors Corp., Detroit.

T. E. FRANKENFIELD, formerly engineer, Schwitzer-Cummins Co., Indianapolis, has been called to active duty as 1st Lieutenant, 113th Observation Squadron, U. S. Army Air Corps, Key Field, Meridian, Miss.



(Left)
David Beecroft
Stephen Johnson, Jr.

(Below)
T. P. Chase

Representing SAE on Brake Servicing School Program

DAVID BEECROFT, STEPHEN JOHNSON, JR., and **T. P. CHASE** have been appointed to represent the SAE in developing a program for brake servicing schools to be conducted by the American Trucking Associations, Inc. These representatives are members of the SAE Brake Committee, headed by **B. B. BACHMAN.**

Studies made by the ATA and the Interstate Commerce Commission indicate that considerable improvement in brake performance could be achieved through schools for mechanics on brake maintenance.

LA RAE L. TEEL is now a 2nd Lieutenant, Air Corps Reserve, Wright Field, Dayton, O. He worked briefly at Bell Aircraft Corp., after graduating from Purdue University, was then called to active duty.

DAVID C. MILLER, former sales engineer, Johnson Bronze Co., New Castle, Pa., is now in the U. S. Navy.

GERALD G. WADE is attached to the 93rd Bombardment Squadron, U. S. Army Air Base, Albuquerque, N. M. He received previous training at the Curtiss-Wright Technical Institute, and with the U. S. Army Air Corps, March Field, Calif.

JOHN C. ESTABROOKE, formerly with General Motors Corp., N. Y., is now employed by the War Department, Technical Service Division, Holabird Quartermaster Depot, Baltimore.

R. C. NEPPER is now on active duty as an inspector, War Department, Ordnance Material, Cincinnati Ordnance District. Formerly he was an engineer, Ahrens-Fox Fire Engine Co., Cincinnati.

LT. WAYNE H. KUHN, former Ohio State University student, is on duty with the U. S. Army, Ordnance Department, assistant to chief of production planning, Ravenna Ordnance Plant, O.

H. G. STEIGERWALT, formerly receiving inspector, Linden Division, General Motors Corp., Linden, N. J., is now a technologist, standardization branch, Office of the Quartermaster General, War Department, Washington, D. C.

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N. C. MILLMAN, product service manager, General Motors of Canada, Ltd., Oshawa, has been temporarily loaned as assistant director of engineering, Automotive Production Branch, Dominion Department of Munitions and Supply, Ottawa.

PHILIP H. PRETZ has resigned as engineer, Cadillac Motor Car Division, General Motors Sales Corp., to become experimental engineer, Chrysler Corp.

CHARLES J. KALLINICK has been transferred from production planning, Clifton Tool Design Department to the Tool Design Department in the Caldwell factory, Curtiss Propeller Division.

At Work On New Job — Bernt Balchen

Press Association, Inc.

BERNT BALCHEN is now a Captain, specialist reserve in the U. S. Air Corps. The 41-year-old aviator and explorer is noted for having flown Rear-Admiral Byrd to France in the big monoplane "America," and later across both the North and South Poles on history-making flights. He also was chief pilot for Lincoln Ellsworth on the 1933 Antarctic Expedition; a test pilot in U. S. for Anthony Fokker; a recipient of the Cross of St. Olaf from the King of Norway; a chief pilot taxiing Consolidated bombers from Bermuda to England; organizer of the Norwegian Air Force in Canada to fight the Nazis; and more recently operations manager, Fred Olsen Line, New York.

CAPT. HAROLD R. HARRIS, vice president, Pan American Grace Airways, left New York recently to inspect the company's new routes in Bolivia which were taken over from German-controlled local lines – Lloyd Boliviano.

H. D. STANLEY is now assistant to chief engineer, Storage Battery Division, Philco Corp., Trenton, having resigned from general managership of Non-Spill Batteries, Inc., New Brunswick, N. J.

THOMAS O. ARNTSEN, procurement inspector, U. S. Air Corps, formerly at Wright Aeronautical Corp., has been commissioned in charge of inspection and test, Aviation Division, Studebaker Corp., South Bend.

H. H. McMAHON has been promoted from specifications engineer, Allison Division of General Motors Corp., to chief project engineer, Menasco Manufacturing Co., Burbank, Calif.

JOHN F. HARRISON is now chief engineer, Buffalo-Springfield Roller Co., Springfield, O. Formerly he was mechanical engineer, Huber Manufacturing Co., Marion, O.

KARL K. PROBST was recently named assistant operating manager, Warren Avenue Plant, Chrysler Corp., Detroit, where they are making sections of the B-26 Martin bomber. Formerly he was chief engineer, American Bantam Car Co., Butler, Pa.

R. M. FARIS recently joined The Texas Co. as chemical engineer, Beacon, N. Y. Previously he was research engineer, Ranger Aircraft Engines, Division of Fairchild Engine & Airplane Corp., Farmingdale, L. I.

EDWARD E. FROST, Cooper Union Institute of Technology graduate, has joined the staff of Simmonds Aerocessories Co., N. Y.

WILLIAM F. WISE has been elected president of Aviation Manufacturing Corp., filling the position vacated by Mr. Harry Woodhead. Mr. Wise was formerly executive vice president of the company.

ARTHUR T. CURREN, former flight engineer, Field Engineering Division, Wright Aeronautical Corp., Paterson, N. J., is enrolled in the U. S. Army Air Corps Basic Flying School, San Angelo, Tex., as an aviation cadet.

RAYMOND L. SPRAGLE has been transferred from the Berwick, Pa., plant, American Car and Foundry Co., to the St. Charles, Missouri branch, where he will retain his title of automotive engineer.

LEO P. BOWMAN, formerly foreman, receiving, shipping, and export inspector, Chrysler Corp., Jefferson Plant, has been made assistant chief inspector of the plant.

F. P. McLOUGHLIN is now employed as a laboratory engineer, Glenn L. Martin Co., Baltimore.

GABRIEL MALKIN has joined the George Scher Engineering Co., Newark. Previously he was automotive engineer, Socony-Vacuum Oil Co., Brooklyn.

ULYSSES A. PATCHETT, assistant professor, mechanical engineering, Stanford University, has been given one-year leave of absence from the University to work in the engineering department, Chrysler Corp. He is now research engineer, Engine Division, Highland Park, Mich.

PIERRE STUART de BEAUMONT, formerly detailer, chassis engineering, Packard Motor Car Co., has been transferred to the post of laboratory assistant, Engine Testing Department, Aircraft Engine Division, Detroit.

HARRY W. JACKSON has been named assistant retail sales manager, Elyria, O., branch, Bendix-Westinghouse Automotive Air Brake Co. Previously he was Canadian representative of the same company.

PETER BUKOFF has been promoted from layout draftsman, Curtiss-Wright Corp. Buffalo plant, to assistant project engineer, Columbus plant.

J. R. VAN DYKE, formerly special instructor in advanced civil aeronautics, Ground School, Texas Technological College, Lubbock, is now in the Mechanical Engineering Department, University of Nevada, Reno.

CHARLES RICHTER SCOTT has joined the Douglas Aircraft Co., Santa Monica, Calif., as general research mechanic.

S. E. DITHMER, formerly with General Motors Japan, Ltd., Osaka, is now at work in New York with General Motors Overseas Operations.

S. E. Dithmer In New York

Graduating B.S.M.E. from Michigan State College, **ROBERT WELLINGTON KROGSTAD** is now employed as mechanical engineer, Motor Fuels Section, Research Department, Phillips Petroleum Co., Bartlesville, Okla.

J. W. SCHAEFER has been named apparatus engineer, Bell Telephone Laboratories, Inc., New York.

Former University of California student **JACKSON R. STALDER** is a junior mechanical engineer, National Advisory Committee for Aeronautics, Langley Field, Va.

RICHARD G. FALLS, former M.I.T. student, is with the North Carolina Shipbuilding Co., Wilmington, N. C.

ALFRED H. HEIM, University of Wisconsin graduate, is now an hydraulic engineer, Fairbanks, Morse & Co., Beloit, Wis.

WARREN JOHNSON is taking the Student Training Course, Allis-Chalmers Manufacturing Co., West Allis, Wis. He recently graduated from the University of Wisconsin.

WALLACE J. ANDERSON is now Driox engineer, The Linde Air Products Co., Tonawanda, N. Y. The company makes oxygen and associated products.

GORDON T. SAWYER is a student engineer, Chrysler Institute of Engineering, Highland Park, Mich.

FRANK B. ROBERTS, University of Wisconsin graduate, is now employed as junior engineer, Industrial Engine Division, Deepwater Dye Works, E. I. du Pont de Nemours & Co., Wilmington, Del.

DONALD W. ENO, formerly field engineer, Wright Aeronautical Corp., in Seattle, Wash., is now engineering pilot at the Paterson, N. J., home office.

Named Executive Engineer

Harold G. Smith

The Buda Co. recently announced the appointment of **HAROLD G. SMITH,** former chief engineer of the Automotive Division at Harvey, Ill., to the post of executive engineer in charge of all engineering of Automotive, Marine, Industrial Engine, and Radial Diesel Engine Divisions.

Mr. Smith is on the Diesel Engine Division, SAE Standards Committee.

DANIEL O. MACFARLANE has been transferred from shop superintendent, Commonwealth Aircraft Corp., Melbourne, Australia, to factory superintendent of the Corporation's new factory at Lidcombe, New South Wales.

JOSEPH F. WARE, JR., has left his post as instructor, applied science, Virginia Polytechnic Institute, Blacksburg, to become service engineer, Lockheed Aircraft Corp., Burbank, Calif.

Former spark plug sales engineer, Firestone Tire & Rubber Co., Akron, **BERNARD A. JONES,** is now research engineer assigned to automotive spark plugs, Ethyl Gasoline Corp., Detroit.

LINWOOD F. MILLEN is a senior engineering draftsman, Norfolk Navy Yard, Portsmouth, Va. He was formerly detailer, Pratt & Whitney Aircraft Division, United Aircraft Corp., East Hartford, Conn.

HENRY E. ROMBERG has gone with Diamond T Motor Car Co., Chicago, as body design engineer. He was formerly chief body draftsman, Seaman Body Corp., Division of Nash-Kelvinator Corp., Milwaukee.

JOHN THOMAS FORD has been named layout draftsman, Chevrolet Motor Division, General Motors Corp. Formerly, he was draftsman, White Motor Co.

1941 B.M.E. of Ohio State University, **CHARLES M. GOERKY,** is now employed by the Bendix Aviation Corp., South Bend, Ind.

WILLIAM C. GOULD, formerly assistant to the president, Brewster Export Corp., New York, recently joined the Allison Division of General Motors Corp., Indianapolis, as assistant service manager.

HERBERT HOSKING was recently named director, Department of Public Information, National Association of Manufacturers, New York.

KENNETH L. STEHLE is a First Lieutenant, Ordnance Department, U. S. Army, 18 Bombardment Wing, Hickam Field, Oahu, T. H.

Meet the Services

BECAUSE so many SAE members have been called to active duty with Uncle Sam's Military Services, the editors believe that SAE Journal readers will be eager to get first-hand information on what their friends are doing in the various camps. So we wrote to them asking for photographs in uniform, and for a note explaining their present jobs. On this page we will print, month by month, portions of the letters received.

MARCH FIELD, CALIF.

"I command a section of men who drive and maintain 30 vehicles which include tractors, trucks, reconnaissance cars, and motorcycles. Our men do only small repairs and preventative maintenance.

"When I took over, the whole section had to be built up and systems set up. At present, all of the experienced regular army men are away at school or have been transferred and the whole section consists of selectees. They are a fine group of men and are doing a good job.

"My supply duties consist of seeing that an outfit of about 150 men is properly dressed in well-fitting clothes, that all equipment for functioning of the organization is requisitioned, procured, issued or stored, and maintained properly."

– Lt. Joseph G. Grosch
September 5

Lt. Joseph G. Grosch

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FORT KNOX, KY.

Tanks are being produced by droves today. That means a vast army of highly-skilled mechanics must also be turned out to keep them in operation. Private van Overveen, assistant instructor, Engine Test Division, Tank Mechanics Department, Armored Force School at Fort Knox, tells something about the operations there.

"The work consists of instructing the students about trouble shooting and repairs on the powerplant of a tank. For the present we are doing that on 'live' tanks, but in the very near future we will go into a new building. . . . This building consists of a lecture room, repair shop, tool room, and, as a main part, 18 soundproof rooms in each of which is installed a tank engine with a water-brake resistance unit. . . . Besides there is a Bendix-Ferragen dynamometer set-up, able to take care of 600 hp at 2500 rpm. . . ."

– Private J. P. van Overveen
August 21

Private J. P. van Overveen

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CAMP HAAN, CALIF.

Major L. L. Beardslee

"Should I endeavor to make an explanation of duties pertaining to my present job you would have a volume 9 x 12 and 4 in. thick. However, briefly, it amounts to this:

"Camp transportation officer, I am charged with all matters pertaining to rail and motor transportation activities, as they pertain to this camp, as well as technical adviser and coordinator of all matters pertaining to maintenance, inspection, and operation of motor vehicles."

– Major L. L. Beardslee
August 12

IS THE FACE FAMILIAR?

When 1st Lt. Bower, Air Corps Materiel Division, got our note asking for a snapshot in uniform, he evidently felt we should have a uniform picture at any cost. We appreciate this spirit of personal sacrifice. . . . And here is what he has to say about his job:

Air Corps Materiel Division, Detroit

"I am assistant production engineering officer for the Central Air Corps Procurement District . . . comprising the 22-state area from the Alleghenies to the Rockies, and from the Great Lakes to the Gulf. My headquarters are in Detroit."

– 1st Lt. Donald L. Bower
August 25

NEW MEMBERS Qualified

These applicants who have qualified for admission to the Society have been welcomed into membership between Aug. 15, 1941, and Sept 15, 1941.

The various grades of membership are indicated by: (M) Member; (A) Associate Member; (J) Junior; (Aff.) Affiliate Member; (SM) Service Member; (FM) Foreign Member.

Buffalo Section

Sommer, Eric E. (J) chemical engineer, Linde Air Products Co., E. Park Drive & Woodward Ave., Tonawanda, N. Y.

Chicago Section

Logemann, Warren F. (M) assistant engineer, International Harvester Co., Gas Power Engineering Department, 2626 W. 31st St., Chicago (mail) 432 Shenstone Rd., Riverside, Ill.

Penfold, Norman Charles (M) director, engine laboratory, Armour Research Foundation, 35 W. 33rd St., Chicago.

Stoffle, N. Neal (J) engineer, United Air Lines Transport Corp., 5959 S. Cicero Ave., Chicago.

Cleveland Section

Gawain, Theodore Henry (J) tire development engineer, Firestone Tire & Rubber Co., Akron, O.

Swarner, N. R. (A) divisional sales manager, Thompson Products, Inc., 2196 Clarkwood Rd., Cleveland.

Van Hoozer, Flayle Levoyde (A) inspector, Cleveland Diesel Engine Division, General Motors Corp., 2160 W. 106th St., Cleveland (mail) 4036 W. 157th St.

Dayton Section

Gates, Richard Lawrence (J) chief draftsman, Curtis Pump Co., 8 Norwood Ave., Dayton.

Olson, Birger G. (M) chief engineer, Hooven, Owens & Rentschler, Division General Machinery Corp., Hamilton, O. (mail) 325 Dick Ave.

Weitzen, William (J) assistant mechanical engineer, U. S. Army, Air Corps, Materiel Division, Wright Field, Dayton (mail) 265 Victor Ave.

Detroit Section

Horvath, Lewis M., Jr. (M) project engineer, Ford Motor Co., Airplane Division, Dearborn, Mich. (mail) 11858 Riad, Detroit.

Indiana Section

Bradshaw, Theron (A) service manager, Perfect Circle Co., Hagerstown, Ind.

Breting, U. Adrian, Jr. (J) mechanical engineering draftsman, Allison Division, General Motors Corp., Indianapolis (mail) 112 E. Walnut St.

Nye, B. B. (J) test engineer, Allison Division, General Motors Corp., Indianapolis (mail) 1431 W. 25th St.

Silbermann, S. A. (M) president, chief engineer, Allied Engineering & Equipment Co., Inc., Indianapolis (mail) 31 E. Georgia St.

Kansas City Section

Davis, Gilbert C. (A) president, Stewart-Warner Alemite Co., Kansas City, Mo. (mail) 2300 McGee St.

Metropolitan Section

Hamilton, Jack Irwin (J) project engineer, Curtiss-Wright Corp., Curtiss Propeller Division, Caldwell, N. J. (mail) 103 Westville Ave.

Loos, Robert Alexander (J) junior test engineer, Wright Aeronautical Corp., Paterson, N. J.

Meyers, Willard F. (A) layout draftsman, Wright Aeronautical Corp., Paterson, N. J. (mail) Old Dock Rd., Closter, N. J.

Redding, James D. (M) staff representative on aeronautics, Society of Automotive Engineers, Inc., 29 W. 39th St., New York City.

Roberts, Milton (A) sales engineering, Cummins Diesel Engine Corp. of New York, 724-732 Garrison Ave., New York City (mail) 782 E. 175th St.

Northwest Section

Collins, George Chester (A) district sales manager, Thompson Products, Inc., 2196 Clarkwood Rd., Cleveland (mail) 4204 11th Ave., N.E., Seattle, Wash.

O'Hara, Edward A. (M) president, Pro-

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duction Engineering Co., 509 Dexter Horton Bldg., Seattle, Wash.

Peterson, Gerald A. (J) mechanical engineer, Boeing Aircraft Co., Seattle, Wash. (mail) 1141 20th Ave., N.

Philadelphia Section

Serrell, John Jacob (J) Sharples Corp., Engineering Department, 23rd & Westmoreland Sts., Philadelphia.

Pittsburgh Section

Raspet, Robert M. (A) auto mechanic's instructor, national defense training, Connelley Vocational High School, Pittsburgh (mail) 208 N. Trenton Ave., Wilkinsburg, Pa.

Aircraft Engineering

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ENGLAND

St. Louis Section

Henning, Otto (M) sales engineer, Carter Carburetor Corp., St. Louis, Mo. (mail) 7346 Burrwood Dr., Normandy, Mo.

Southern California Section

Bonham, L. D. (M) process engineer, Lockheed Aircraft Corp., Burbank, Calif. (mail) 1327 N. Spazier Ave., Glendale, Calif.

Horst, Paul S. (A) master mechanic, South Gate Fire Department, 8917 State St., South Gate, Calif. (mail) 8689 Garden View Ave.

Londelius, J. C. (A) engineer, Douglas Aircraft Co., Inc., Santa Monica, Calif. (mail) 12050 Laurel Terrace Drive, North Hollywood, Calif.

Todd, William P. (A) western representative, Weatherhead Co., Cleveland (mail) 317 S. Canon Dr., Beverly Hills, Calif.

Southern New England Section

Doran, Philip David (M) sales engineer, Pratt & Whitney Aircraft, Division of United Aircraft Corp., East Hartford, Conn.

Tulsa Group

Hallam, Clyde M., Major (S M) U. S. Army, Field Artillery School, Department of Motor Transport, Fort Sill, Okla.

Smith, John Floyd (A) service supervisor, Toney Chisum, Inc., P. O. Box 869, Amarillo, Tex. (mail) 1019 Polk St.

Washington Section

Agerter, Harry (A) aircraft and sales manager, Engineering & Research Corp., Riverdale, Md.

Outside of Section Territory

Lesley, Hubert Glenn (M) maintenance engineer, Eastern Air Lines, Inc., Box 3581, Miami, Fla.

APPLICATIONS Received

The applications for membership received between Aug. 15, 1941, and Sept. 15, 1941, are listed below. The members of the Society are urged to send any pertinent information with regard to those listed which the Council should have for consideration prior to their election. It is requested that such communications from members be sent promptly.

Baltimore Section

Spinner, Robert William, 2nd Lt., test engineer, U. S. Army, Aberdeen Proving Ground, Md.

Buffalo Section

Hamsher, John W., engineering department, Curtiss-Wright Corp., Buffalo.

Canadian Section

Zojac, Walter Ronald, automotive engineer, Ford Motor Co. of Canada, Windsor, Ont., Canada.

Chicago Section

Bloomer, Arthur C., junior draftsman, The Buda Co., Harvey, Ill.

Finch, Kenneth W., engineer, research department, Studebaker Corp., South Bend, Ind.

Yenni, William Henry, chief engineer, vice president, Joseph Weidenhoff, Inc., Chicago.

Cleveland Section

Anderson, J. Edward C., design of fabricating equipment, Parker Appliance Co., Cleveland.

Beremand, Preston G., Jr., assistant project engineer, Pump Engineering Service Corp., Cleveland.

Chormanski, Casper W., project engineer, Pump Engineering Service Corp., Cleveland.

Farr, Arthur Harrison, development engineer, Thompson Products, Inc., Cleveland.

Feichter, Harold R., production manager, director of research, United States Quarry Tile Co., Canton, Ohio.

Horn, Norbert W., draftsman, Pump Engineering Service Corp., Cleveland.

Johnson, Robert Sheldon, development engineer, Thompson Products, Inc., Cleveland.

McKinney, R. C., superintendent, Cleveland Graphite Bronze Co., Cleveland.

Menge, John C., patent clerk, Thompson Products, Inc., Cleveland.

Morris, Glenn Laurence, draftsman, Babcock & Wilcox Co., Barberton, Ohio.

Murray, John Frederick, development engineer, Thompson Products, Inc., Cleveland.

Poremba, Joseph August, development engineer, Thompson Products, Inc., Cleveland.

Schutte, Robert M., experimental engineer, Thompson Products, Inc., Cleveland.

Spotz, Donald Ralph, engineer, Thompson Products, Inc., Cleveland.

Truesdell, Stanley E., engineering, drafting, S. K. Wellman Co., Cleveland.

Dayton Section

Henneuse, Richard F., designer, assistant to chief engineer, Huber Mfg. Co., Merion, Ohio.

Taylor, James H., diesel designer, General Machinery Corp., Hamilton, Ohio.

Detroit Section

Berford, Robert F. William, chief engineer, tank division, Gar Wood Industries, Inc., Detroit.

Boughner, Lawrence G., checker, engineering department, Timken-Detroit Axle Co., Detroit.

Bunting, William C., laboratory assistant, experimental test laboratory, Chevrolet Motor Division, General Motors Corp., Detroit.

Habermann, W. A., sales engineer, American Brakeblok Division, American Brake Shoe & Foundry Co., Detroit.

Holdeman, John William, draftsman, Packard Motor Car Co., Detroit.

Kriese, George E., Jr., dynamometer tester, Packard Motor Car Co., Detroit.

Laing, Robert W., supercharger test engineer, Packard Motor Car Co., Detroit.

McQuaid, John Grant, junior engineer, Chrysler Corp., Highland Park, Mich.

Nakahara, Francis Toshihiki, junior engineer, U. S. Army, Air Corps, Materiel Division, Central Procurement District, Detroit.

Neumeyer, Martin J., junior engineer, Research Laboratories Division, General Motors Corp., Detroit.

Rippingille, Frank, Research Laboratories Division, General Motors Corp., Detroit.

Rollinson, Mark A., tool engineer, Warren Aircraft Plant, Chrysler Corp., Detroit.

Indiana Section

Armor, W. G., laboratory engineer, Inter-

national Harvester Co., Fort Wayne, Ind.

Heath, **Robert A.,** development engineer, International Harvester Co., Fort Wayne, Ind.

Hunter, **Leo L.,** Corporal, 83rd Ordnance Company, Unit Training Center, Aberdeen, Md. Mail: 1212 Wea Ave., Lafayette, Ind.

Lowen, **Paul O'Connor,** engineer, International Harvester Co., Fort Wayne, Ind.

Young, **Jay A.,** chief chemist, Asbestos Mfg. Co., Huntington, Ind.

Kansas City Section

Bondor, **Frank M.,** aeronautical engineer, U. S. Department of Commerce, Civil Aeronautics Administration, Aircraft Airworthiness Section, Kansas City, Mo.

Metropolitan Section

Barta, **James E.,** experimental test engineer, Curtiss Propeller Division, Curtiss-Wright Corp., Caldwell, N. J.

Bradicich, Albert J., Jr., layout man, Ranger Aircraft Engines, Division Fairchild Engineering & Airplane Corp., Farmingdale, L. I., N. Y.

Enell, **John Warren,** junior experimental test engineer, Wright Aeronautical Corp., Paterson, N. J.

Lawrence, William R., methods engineer, General Instrument Co., Elizabeth, N. J.

Miller, **Raymond A,** supervisor of overhaul, American Airlines, Inc., N. Y. Municipal Airport, Jackson Heights, L. I., N. Y.

Neumann, Charles E., technical sales, Tire Trading Co., Newark, N. J.

Paull, Frederick Milton, director of service, Dodge Motors New York Inc., New York City.

Sidel, **Robert D.,** president, Budget Transportation Service, vice president, Metropolitan Distributors, Inc., New York City.

Small, Ronald J., research engineer, Brewster Aeronautical Corp., Long Island City, N. Y.

Stuart, Murray H., draftsman, Breeze Corps., Inc., Newark, N. J.

Swindells, James H., test department, Ranger Aircraft Engines, Division Fairchild Engine & Airplane Corp., Farmingdale, L. I., N. Y.

Milwaukee Section

Gunther, Frederick John, sales engineer, Waukesha Motor Co., Waukesha, Wis.

Vogel, Edward A., chief engineer, magneto division, Fairbanks, Morse & Co., Beloit, Wis.

Northern California Section

Champion, Albert R., research engineer, Standard Oil Co. of Calif., Richmond, Calif.

Clarke, Millar F., draftsman, Shell Oil Co., Inc., San Francisco, Calif.

Hawker, Norman B., engineering draftsman, Hall-Scott Motor Car Co., Berkeley, Calif.

Hundere, Alf, research engineer, Standard Oil Co. of Calif., Richmond, Calif.

Muchmore, Richard Wayne, plant engineer, Federal-Mogul Service, San Francisco, Calif.

Northwest Section

Clausen, Walter Robert, salesman, Shell Oil Co., Inc., Seattle, Wash.

Mulkey, A. G., sales engineer, Waukesha Motor Co., Seattle, Wash.

Redinger, Jack, engineer, structural testing department, Boeing Airplane Co., Seattle, Wash.

Philadelphia Section

Garthwaite, **Albert Alexander, Jr.,** test engineer, Lee Tire & Rubber Co., Conshohocken, Pa.

Simpson, Henry A., secretary, treasurer, consulting engineer, Machine & Tool Designing Co., Philadelphia.

St. Louis Section

Webb, John Lane, junior research engineer, Shell Oil Co., Inc., Wood River, Ill.

Southern California Section

Arnhym, Albert A., chief engineer, Airmax Corp., San Diego, Calif.

Barnes, John C., stress analyst, Vultee Aircraft, Inc., Vultee Field, Calif.

Belsley, Steven Eric, engineer, aerodynamicist, North American Aviation, Inc., Inglewood, Calif.

Bugby, Roger A., junior weight computer, Lockheed Aircraft Corp., Burbank, Calif.

Chevedden, Ray Thomas, junior layout draftsman, Lockheed Aircraft Corp., Burbank, Calif.

Johnson, R. E., sales engineer, General Electric Co., Los Angeles, Calif.

Thompson, Jesse Lysander, electrical engineer, designer, Kelman Electric & Mfg. Co., Los Angeles, Calif.

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Kopplin, Carl H., experimental test engineer, Pratt & Whitney Aircraft, Division of United Aircraft Corp., East Hartford, Conn.

Pratt, Robert William, experimental test engineer, Pratt & Whitney Aircraft, Division

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Porter, John F., engineering draftsman, Navy Department, U. S. Naval Gun Factory, Washington, D. C.

Wichita Section

McAleavey, Frank L., draftsman, Cessna Aircraft Co., Wichita, Kansas.

Outside of Section Territory

Billings, James W., Jr., 2nd Lt., executive & transportation officer, U. S. Army, 442 Ordnance Co., Gowen Field, Boise, Idaho.

Bujak, Fred John, Private, U. S. Army, Fort Riley, Kansas.

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About Authors

(*Concluded from p. 13*)

Rubber Co., at Detroit. In 1931 he received a B.A. degree in physics from the University of Colorado, and in 1935 was awarded a Ph.D. in theoretical physics from the University of Wisconsin.

▪ C. M. SLOMAN *(M '39) has been associated with the United States Rubber Co. as a mechanical engineer since 1927.*

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▪ RAYMOND W. YOUNG *(M '31) won the Manly Memorial Medal in 1936, for his paper, "Air-Cooled Radial Aircraft-Engine Performance Possibilities." He has been with Wright Aeronautical Corp. since 1925 as test engineer, experimental engineer, assistant engineer and, today, chief engineer. He received his B.S., M.S., and M.E. degrees from Yale University, graduating in 1922.*

▪ *The first contact that* HAROLD T. YOUNGREN *(M '12), chief engineer of Oldsmobile, had with the automotive industry, was when he went to work as a draftsman for the Allis-Chalmers Mfg. Co. shortly after graduating from high school. From that time until the War years, he served on the engineering staffs of Westinghouse, Falls Motor Co., and the Harley Davidson Motor Co. In 1917, he entered the employ of the Curtiss Aeroplane and Motor Corp., and during the War served as a designing engineer for Curtiss, both at Buffalo and at Garden City, L. I. Following the Armistice, from 1920-1926, Mr. Youngren could be found in engineering positions with J. B. Ferguson; in the design of the Fergus car; development of the Houdaille shock absorber; and designing the chassis and motor for Pierce-Arrow. 1927 saw him with Studebaker as consulting engineer, and a year later he was named executive engineer of that company, in charge of passenger-car chassis design. In the middle of 1929, Mr. Youngren came to General Motors as assistant chief engineer for Buick. He held this position until Nov. 1, 1933, when he was named chief engineer of Oldsmobile.*